BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In The Matter Of

PUBLIC UTILITIES COMMISSION.

Instituting a Proceeding to Investigate the Implementation of Feed-in Tariffs

DOCKET NO. 2008-0273

PUBLIC UTILITIES

JOINT RESPONSE OF THE HECO COMPANIES AND CONSUMER ADVOCATE TO THRESHOLD LEGAL QUESTIONS

<u>AND</u>

CERTIFICATE OF SERVICE

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Hawaiian Electric Company, Inc. ("HECO"), Hawaii Electric Light Company, Inc. ("HELCO"), Maui Electric Company, Limited ("MECO") and the Division of Consumer Advocacy, Department of Commerce and Consumer Affairs (the "Consumer Advocate"), respectfully submit their joint response ("Joint Response") to the threshold legal questions identified in Appendix C to the scoping paper entitled "Feed-In Tariffs: Best Design Focusing Hawaii's Investigation" ("Scoping Paper"), attached to the Commission's letter dated December 11, 2008, which directed the parties to the feed-in tariffs' ("FIT") investigation, Docket No. 2008-0273, to respond to the Scoping Paper's threshold legal questions within thirty days.²

HECO, HELCO and MECO are collectively referred to as the "HECO Companies."

Thirty days from December 11, 2008 was Saturday, January 10, 2008. However, pursuant to Hawaii Administrative Rules ("HAR") § 6-61-22, the period for filing this Joint Response runs until the end of the first day after December 11, 2008 which is not a Saturday, Sunday or holiday. Thus, this Joint Response is timely filed.

I. <u>DISCUSSION</u>

A. THRESHOLD LEGAL QUESTION NUMBERS 1 AND 3

1. Introduction

Question number one set forth in Appendix C of the Scoping Paper is:

If the price associated with a feed-in tariff exceeds the utility's avoided cost, then by definition the utility's customers will incur higher costs than they would in the absence of the feed-in tariff. Please comment on the legal implications of this result. For example:

- a) Is this result permissible under current Hawaii statutes?
- b) Does HRS § 269-27.2 create a ceiling on the feed-in tariff price?
- c) If so, how do the signatories to the Energy Agreement (or other parties to this proceeding) propose to demonstrate that each feed-in tariff price does not violate the statute?

Question number three is:

- a) If the tariff price exceeds the utility's avoided cost, is there a violation of PURPA, provided the seller is relying on a state law right to sell rather than a PURPA right to sell?
- b) If the tariff price exceeds the utility's avoided cost (as calculated prior to the existence of the tariff), could a seller assert a PURPA right to a sale at the tariff price, on the grounds that the utility now has a new "avoided cost" equal to cost it would have incurred under the state-mandated feed-in tariff?
- c) If the price associated with a feed-in tariff is less than the utility's avoided cost, what benefit does the tariff offer the developer that is not already available under PURPA?
- d) Please offer any other comments concerning the legal and practical relationship between the feed-in tariff and existing PURPA rights and obligations.

With respect to Question 1 ("a" through "c") and 3 ("a" and "d"), in summary, Hawaii electric utilities are subject to the Commission's avoided cost rules, which are set forth in the Commission's Standards for Small Power Production and Cogeneration in the State of Hawaii, Title 6, Chapter 74, HAR. These rules were promulgated by the Commission to implement Section 269-27.2 of the Hawaii Revised Statutes ("HRS"), the Public Utility Regulatory Policies

Act of 1978, as amended ("PURPA") and the Rules and Regulations of the Federal Energy Regulatory Commission ("FERC") (which are codified in Part 292 of 18 C.F.R.). PURPA and the Commission's avoided cost rules provide that an electric utility cannot be required to pay more than avoided cost for energy. PURPA preempts state statutes or regulations that require the payment of a rate in excess of avoided costs to qualifying facilities ("QFs").

State energy objectives and initiatives include increasing self-sufficiency and decreasing reliance on imported energy use. The FIT has been identified as one mechanism to accomplish the state's objectives. Under the HECO Companies' proposed FIT, the proposed FIT can be viewed, in effect, as a set aside. The proposed FIT sets forth (1) rates to be paid for eligible renewable technologies, and (2) a targeted amount of renewable generation that is eligible to receive the rates set forth in the FIT.

The FIT rates will be based on cost data collected that is representative of Hawaii costs to install these types of renewable technologies plus a certain amount for reasonable profit (this amount is to be determined by the Commission). Viewed in this light, the rates available via the FIT, can be viewed as being representative of the costs avoided by the utility of installing similar renewable technologies. In addition, since the cost data collected will be used to determine the FIT rates, the cost data can be viewed as demonstrating that that the rates being offered under the FIT are reasonable.³

It should be noted that an argument can be made that the Commission's avoided cost rules do not prevent a utility from agreeing to pay more than avoided cost. However, a decision and order in a HELCO Schedule Q contract approval docket could be interpreted to mean that HRS §269-27.2 prevents a utility from agreeing to purchase at a rate in excess of its avoided

A similar approach was used to demonstrate that the price HECO agreed to pay for solar energy generated from a photovoltaic system on HECO's Ward Avenue facility pursuant to a contract was reasonable.

cost. Given the proposed approach set forth above with respect to the collection of Hawaii cost data and basing the FIT rates on the collected cost data, plus a reasonable profit, it may not be necessary to resolve this question in this docket.

With respect to Question 3.b, a seller cannot assert a PURPA right to a sale at the FIT rate as the process to develop the FIT rates does not establish a new avoided cost. This subject is discussed in Section I.A.2.c.v. below.

With respect to Question 3.c, there are benefits to a developer even if the FIT rates are below the utility's avoided costs. These benefits are discussed in Section I.A.2.c.iv below.

2. Question 1 ("a" through "c") and 3 ("a" and "d")

a. Avoided Cost Rules

Hawaii electric utilities are subject to the Commission's avoided cost rules, which are set forth in the Commission's Standards for Small Power Production and Cogeneration in the State of Hawaii, Title 6, Chapter 74, HAR. These rules were promulgated by the Commission to implement Section 269-27.2 of the HRS, PURPA and the Rules and Regulations of FERC.

FERC has held that jurisdiction over the rates charged by QFs for sales at wholesale (which includes sales to public utilities) is vested in FERC, and that PURPA preempts state statutes or regulations that would require the payment of a rate in excess of avoided cost (determined in accordance with the FERC rules, as implemented by the States) to QFs. See Re Connecticut Light & Power Co., Docket No. EL93-55-000, Order Granting Petition for Declaratory Order (FERC Jan. 11, 1995).

FERC also held that its decision would not have retroactive effect, and that FERC would not entertain requests to invalidate pre-existing contracts where the avoided cost issue could have been raised, but was not. According to the FERC ruling, state commissions could require payment rates in excess of avoided costs for entities that are not QFs or public utilities (under the Federal Power Act).

HRS §269-27.2(c) provides that:

The rate payable by the public utility to the producer for the nonfossil fuel generated electricity supplied to the public utility shall be as agreed between the public utility and the supplier and as approved by the public utilities commission; provided that in the event the public utility and the supplier fail to reach an agreement for a rate, the rate shall be as prescribed by the public utilities commission according to the powers and procedures provided in this chapter.

In the exercise of its authority to determine the just and reasonable rate for the nonfossil fuel generated electricity supplied to the public utility by the producer, the commission shall establish that the rate for purchase of electricity by a public utility shall not be more than one hundred per cent of the cost avoided by the utility when the utility purchases the electrical energy rather than producing the electrical energy.

The commission's determination of the just and reasonable rate shall be accomplished by establishing a methodology that removes or significantly reduces any linkage between the price of fossil fuels and the rate for the nonfossil fuel generated electricity to potentially enable utility customers to share in the benefits of fuel cost savings resulting from the use of nonfossil fuel generated electricity. As the commission deems appropriate, the just and reasonable rate for nonfossil fuel generated electricity supplied to the public utility by the producer may include mechanisms for reasonable and appropriate incremental adjustments, such as adjustments linked to consumer price indices for inflation or other acceptable adjustment mechanisms.

The third paragraph was added pursuant to Act 162. The language was intended, at least in part, to reflect the success of MECO in negotiating a Power Purchase Contract for As-Available Energy dated December 3, 2004, with Kaheawa Wind Power, LLC ("KWP") (the "KWP PPC"), in which 70% of the energy payments that MECO makes to KWP are based on a fixed payment rate.⁵

Similar to the FERC rules, the Commission's rules specify that each QF shall have the option either:

(1) To provide energy as the qualifying facility determines that energy to be available for those purchases, in which case the rates for such purchases shall be based on the

The remaining 30% is based on MECO's avoided energy cost data filed with the Commission pursuant to HAR § 6-74-17(b). The PPC has on-peak and off-peak energy prices, both of which are based on a combination of both a fixed and a variable pricing component. See Application filed December 16, 2004, in Docket No. 04-0365, for approval of the KWP PPC.

purchasing utility's avoided energy costs calculated at the time of delivery, determined after consideration of the factors set forth in §6-74-23; or

- (2) To provide energy or capacity pursuant to a legally enforceable obligation for the delivery of energy or capacity over a specified term, in which case the rates for those purchases, at the option of the qualifying facility exercised prior to the beginning of the specified term, shall be based on either:
 - (A) The avoided costs calculated at the time of delivery, determined after consideration of the factors set forth in §§6-74-5(b)6-74-23; or
 - (B) The avoided costs calculated at the time the obligation is incurred, determined after consideration of the factors set forth in §6-74-23.

HAR § 6-74-22(c).

HAR § 6-74-23 specifies factors affecting rates for purchases, and HAR § 6-74-24 addresses periods during which purchases are not required. HAR § 6-74-22(a) specifies that rates for purchases shall:

- (1) Be just and reasonable to the electric consumer of the electric utility and in the public interest;
- (2) Not discriminate against qualifying cogeneration and small power production facilities; and
- (3) Be not less than one hundred per cent of avoided cost for energy and capacity purchases to be determined as provided in §6-74-23 from qualifying facilities and not less than the minimum purchase rate.⁶

In the exercise of its authority to determine the just and reasonable rate for the nonfossil fuel generated electricity supplied to the public utility by the producer, the commission shall establish that the rate for purchase of electricity by a public utility shall not be more than one hundred per cent of the cost avoided by the utility when the utility purchases the electrical energy rather than producing the electrical energy.

This section was again amended in 2006 by Act 162 (23rd Haw. Leg.), signed June 2, 2006.

The requirement that rates for purchase be not less than 100% of avoided cost and not less than the minimum purchase rate was based on HRS § 269-27.2(c), as amended in 1983 by Act 243, 1983 Haw. Sess. L. 516-17, which allowed the Commission to prescribe the rate to be paid to a nonfossil fuel producer, and directed the Commission, in determining the just and reasonable rate to be paid to such a producer, to consider, on a generic basis, the minimum floor a utility should pay. The inclusion of minimum rates in purchased power agreements ("PPAs") sometimes resulted in payment rates in excess of avoided costs, and HECO took the position that the requirement was preempted, with respect to QFs, by FERC's avoided cost cap rulings (i.e., that PURPA preempts state statutes or regulations that would require the payment of a rate in excess of avoided cost to QFs). In 2004, the Legislature repealed that portion of Section 269-27.2(c) that required the inclusion of minimum floor rates. Act 95, §3, 2004 Haw. Sess. L. 385. As amended, § 269-27.2(c) provides that:

FERC has stated that state regulatory authorities are to be afforded "great latitude" in determining the manner of implementation of PURPA, and that FERC would provide "an opportunity for experimentation" in this implementation. <u>Cogeneration</u>, 61 F.E.R.C. ¶61,252, 1992 FERC LEXIS 2513, *11.

There may be an effort to revisit the prices to be paid by utilities for renewable energy. For example, with respect to renewable energy, the 2007 Hawaii State Legislature passed a measure that explicitly stated that the Commission may consider the need for increased renewable energy in rendering decisions on utility matters. Potentially, if energy from a renewable source were more expensive than energy from fossil fuel, the Commission may still approve the purchase of energy from the renewable source. Act 177, signed June 13, 2007; effective July 1, 2007. In enacting Act 177, the Legislature found that: "Progressive energy policy-making at the state level is one of the most important issues on the current legislative agenda."

b. Calculation of Avoided Costs

The HECO Companies have paid QFs for as-available energy based on the utilities' filed avoided energy costs (i.e., at avoided energy costs calculated at the times of delivery), which currently vary with the price of oil. HAR § 6-74-22(c)(1). Short-run avoided energy cost rates for on-peak and off-peak energy currently are filed on a quarterly basis pursuant to HAR § 6-74-17(b).8

Presently, there are statutory mandates that require electric utilities to pay more than avoided cost for energy supplied. For example, under the Net Energy Metering law included in Chapter 269 of the HRS, eligible participants in the electric utilities' net energy metering program are paid at retail rates (which exceed the utilities' quarterly filed avoided energy costs) for excess energy provided to the utility.

With respect to avoided energy cost contracts, the HCEI Agreement (page 16) states:

The parties regard avoided energy cost based on fossil fuel prices for renewable energy contracts as a vestige of the past. The Hawaiian Electric Utilities will make a request of all

The HECO Companies have also paid QFs for as-available energy based on long-run avoided energy costs estimated at the time of the PPA negotiations. Long-term avoided energy costs are determined using the differential revenue requirements ("DRR") methodology. (Avoided energy costs include, avoided fuel costs, avoided variable operations and maintenance ["O&M"] costs, avoided fuel and variable O&M working cash, avoided fuel inventory, and avoided transmission energy losses.)

Under the DRR methodology, a base utility plan and a QF-in plan are compared. The total revenue requirements for the base plan are compared to the total costs for the QF-in plan (without payments to the QF). The difference in revenue requirements equals the costs avoided by the utility – i.e., the utility's avoided costs. The DRR methodology utilizes a production simulation model, a revenue requirements model, and spreadsheets to calculate the differences in revenue requirements between the utility's base plan and the alternate (or QF-in) plan.

Avoided energy costs are calculated by performing production simulations for the base and QF-in plans. The production simulation model captures the impacts of the QF's proposed project on the utility's system energy costs. Avoided energy costs are the cost savings (i.e., fuel, variable O&M, fuel and variable O&M working cash, fuel inventory, and transmission energy losses) resulting from the energy displaced by the QF's proposed project.

One of the key assumptions for production simulation models is the fuel price forecast. The recent volatility in oil prices has highlighted the difficulty in developing a long term fuel price forecast. For example, world oil costs rose from \$30/barrel in November, 2003 to over

existing independent power producers in which PPA are based on fossil fuel prices to renegotiate those contracts to delink their energy payment rates from oil costs and provide ratepayers with stable, long-term and predictably priced contracts. If such requests are not accepted, as opportunities arise, the Hawaiian Electric Utilities will negotiate new contracts or extensions of existing contracts to delink their energy payment rates from oil costs. . . . All new renewable energy contracts are to be delinked from fossil fuel oil costs.

\$140/barrel in July, 2008. Oil costs dropped to as low as \$35.35/barrel on December 24, 2008, as a result of the U.S. financial crisis (which illustrates the current volatility of oil costs).

As previously discussed, MECO entered into the KWP PPC in which 70% of the energy payments that MECO makes to KWP are based on a fixed payment rate. The agreed-upon fixed pricing component partially decoupled the payment rates to the wind farm for energy from the actual price of oil at the time the energy is delivered. This was intended to reduce the energy price volatility and provide a benefit to MECO's customers in the form of pricing below MECO's avoided energy costs in the event that future oil prices remain high or even further escalate. The pricing structure establishes lower fixed pricing in the early years compared to the later years, and was intended to provide a reasonable balance of the pricing risks between KWP and MECO's customers. KWP Application at 13.¹⁰

c. FIT

i. Introduction

The State of Hawaii's energy objectives include (per HRS §226-18(a)):

- Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;
- Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased;

The reference to "world oil costs" is to daily closing prices at 2:30 p.m. from the trading floor of the New York Mercantile Exchange ("NYMEX") prices for futures contracts for light, sweet crude oil, with a delivery point of Cushing, Oklahoma, which is the oil cost generally reported in the news media. The Energy Information Administration ("EIA") of the U.S. Department of Energy ("DOE") has a website that lists daily closing prices back to April 4, 1983, with links to weekly, monthly and annual prices for the same period: http://tonto.eia.doe.gov/dnav/pet/hist/rclc1D.htm.

The pricing structure was determined through a series of proposals and negotiations between KWP and MECO. Key objectives in the negotiations included KWP's considerations in developing an economically viable long-term wind farm project, the parties' desire to achieve a more stable energy pricing, MECO's desire for renewable power, and MECO's desire to accommodate KWP's wishes for quick execution of a contract to the extent practical. Factors considered in order to attain these objectives included KWP's and MECO's expectations for future oil prices over the long term, MECO's current filed avoided energy cost rates, MECO's estimated long-run avoided energy costs based on its current fuel oil forecast, historical fluctuations in filed avoided energy cost rates, and current fuel prices relative to the current MECO fuel oil forecast. KWP Application at 12. A more detailed description of the process was provided in response to CA-IR-16, filed January 28, 2005, pursuant to Protective Order No. 21559 (January 27, 2005).

- Greater energy security in the face of threats to Hawaii's energy supplies and systems; and
- Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use.

There have been a number of actions taken in support of the energy objectives. For example, in July 2007, Act 234 of the 2007 Hawaii State Legislature became law and requires a statewide reduction of greenhouse gas ("GHG") emissions by January, 1, 2020 to levels at or below the statewide GHG emission levels in 1990. Act 207 (signed into law on July 1, 2008) was enacted to establish a renewable energy facility siting process for state and county permits required for siting, development, construction, and operation of a new renewable energy facility with a capacity of at least 200 MW. The law is intended to promote efficiency and transparency in the renewable energy facility permitting process.

In addition, the Energy Agreement among the State of Hawaii, Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, and Hawaiian Electric Companies ("HCEI Agreement"), which arises out of the Hawaii Clean Energy Initiative ("HCEI"), documents a course of action to make Hawaii energy independent, while recognizing the need to maintain the HECO Companies' financial health in order to achieve that objective.

The Governor of the State of Hawaii, the Department of Business Economic

Development and Tourism ("DBEDT"), the Consumer Advocate and the HECO Companies

(collectively the "HCEI Parties") signed the HCEI Agreement on October 20, 2008. The HCEI

The act also establishes a task force, comprised of representatives of state government, business (including the electric utilities), the University of Hawaii and environmental groups, which is charged with preparing a work plan and regulatory approach for "implementing the maximum practically and technically feasible and cost-effective reductions in greenhouse gas emissions from sources or categories of sources of greenhouse gases" to achieve 1990 statewide GHG emission levels. The electric utilities are participating in the Task Force, as well as in initiatives aimed at reducing their GHG emissions. The Director of the Hawaii Department of Health is also required to adopt rules, before December 31, 2011, which establish emission limits for specific sources or categories of sources of emissions and provide for reporting and verification of statewide emissions and monitoring and compliance.

Agreement resulted from the HCEI, a collaboration between the State of Hawaii and the U.S. DOE with the goal of decreasing energy demand and accelerating the use of renewable, indigenous energy resources in Hawaii in the residential, building, industrial, utility, and transportation end-use sectors. The HCEI Agreement commits HECO to facilitate the integration of substantial amounts of wind and other renewable energy into its grid and to enable electricity consumers to manage their electricity use more effectively. It also includes certain regulatory changes to allow the HECO Companies to better support the initiatives of the HCEI Agreement. 12

FITs are one of the initiatives specifically identified in the HCEI Agreement. In connection with the State's efforts to reduce dependence on fossil fuels and related environmental costs, the HCEI Parties have agreed that:

[F]eed-in tariffs are beneficial for the development of renewable energy, as they provide predictability and certainty with respect to the future prices to be paid for renewable energy and how much of such energy the utility will acquire. The parties agree that feed-in tariffs should be designed to cover the renewable energy producer's costs of energy production plus some reasonable profit, and that the benefits to Hawaii from using a feed-in tariff to accelerate renewable energy development (from lowering oil imports, increasing energy security, and increasing both jobs and tax base for the state), exceed the potential incremental rents paid to the renewable providers in the short term.

HCEI Agreement at 16-17.

ii. HECO Companies' Proposal

As discussed in the Joint Proposal on Feed-In Tariffs of the HECO Companies and Consumer Advocate, filed December 23, 2008 ("FIT Proposal"), a FIT is generally an offering of a fixed-price contract over a specified term with specified operating conditions to certain eligible renewable energy generators. Annual FIT quantity targets are planned to be established

The HCEI Agreement notes that: "We will strive to assure that this process to achieve the HCEI goals and objectives will be directed towards providing ratepayer benefits, including long term price stability, and ultimately lower cost than would be incurred using imported fossil fuels."

and regularly updated in the course of a FIT update process.¹³

As proposed, the FIT would further the HECO Companies' CESP Plan by differentiating between technology type, project size, and location, and would be based on the costs of developing a "typical" project that is reasonably cost-effective. ¹⁴ In addition, any base rate tariff would be designed to appropriately compensate renewable energy providers for the reliability benefits that are provided to ratepayers, and could be adjusted downwards for renewable energy systems that do not have these features.

As discussed above, under the FIT Proposal the FIT will identify the renewable technologies eligible to participate in the FIT and the target amounts of the renewable technologies that will be eligible to participate. In effect, the FIT establishes set asides for the specific types and amounts of renewable technologies. The target amounts will be incorporated and updated in the new resource planning process (CESP process).

There is a question as to how a utility can take into account the beneficial attributes of renewable resources in determining the price to be paid to producers of renewable resources, or in determining that the utility itself should implement renewable resources.

First, the utility cannot be expected to simply boost the avoided cost price paid to

The annual quantity targets will be based on both technical and non-technical factors, considering among other things: (1) renewable portfolio standards requirements; (2) the goals of the Hawaii Clean Energy Initiative; (3) technical attributes of the resources; (4) characteristics of the utility systems being interconnected to; (5) cumulative amounts of installed intermittent resources; (6) impacts on curtailment of as-available energy from existing resources; (7) projected energy production levels; (8) ratepayer impacts; (9) impacts on utility credit ratings; (10) administrative resource requirements; and (11) other policy goals including the desire to provide fair opportunity to multiple developers or to encourage development of certain market segments, for example, residential and small commercial photovoltaics.

There is a need to establish high level cumulative system targets for intermittent generation by island to avoid system stability issues and reduced system reliability. The cumulative system capacity targets should include all variable generation including independent power producers, net energy metered systems, and FIT systems that will contribute to island system stability issues. The high level cumulative target settings by island will be incorporated and regularly updated in the CESP process. The annual FIT quantity targets will take this into account when the data become available. In the interim, to manage this issue for those island systems that are already highly sensitive to adding more variable resources such as at HELCO, the initial proposed FIT will target resources with grid-friendly features. KEMA's December 23, 2008 HECO Feed-In Tariff Program Plan at 29-30.

renewable resource producers by the amount of an "externalities adder." FERC's avoided cost cap rulings appear to preclude the payment of an externalities adder to a renewable energy producer. FERC has indicated that, "in setting avoided cost rates, a state may only account for costs which actually would be incurred by utilities," and that a state "may not set avoided costs rates . . . by imposing environmental adders or subtractors that are not based on real costs that would be incurred by utilities." Re Southern California Edison Co., Docket No. EL95-1 6-000, Order on Requests for Reconsideration (F.E.R.C. June 2, 1995). 15

In addition, the utility cannot be expected to "determine" an independent avoided cost for renewable resources simply by conducting a competitive bid limited to renewable resources. On the other hand, it does appear that the utility can incorporate specific resources, or types of resources, in a resource plan, based on the attributes of those resources and the degree to which they help the utility achieve the goals and objectives specified for the resource plan.

The FERC rulings should not preclude the consideration of externalities in the selection of a utility resource plan (which could include renewable resources, or which could form the basis for a higher utility avoided cost determination for purchased power resources, including renewable resources, that provide equivalent externalities benefits). The qualitative consideration of externalities can have an impact in increasing the avoided cost available to renewable resources. For example, HECO did not adopt the least utility-cost plan as its preferred IRP Plan in Docket No. 7257. HECO adopted a somewhat more expensive plan, from a utility-cost standpoint, that included coal-fired generation in order to reduce HECO's

States may choose to provide taxpayer subsidies for renewable energy, not utility avoided cost adders. Rates for QF power that exceeds avoided cost do not violate PURPA if they are offset by a "dollar-for-dollar tax credit, calculated and credited to the utility on a month-by-month basis, that equals the amount by which rates . . . exceeded the utility's avoided cost." Re CGE Fulton. L.L.C, Docket No, EL95-27-001, 70 F.E.R.C. 161,290, 1995 FERC Lexis 404 (F.E.R.C. March 15, 1995), reconsideration denied, 71 F.E.R.C. 61,232, 1995 FERC Lexis 1027 (May 25, 1995).

dependency on fuel oil. To the extent that a renewable resource can provide equivalent benefits, the renewable resource could receive a price higher than that based on the utilities least utility-cost plan (which might include only oil-fired generation).

Thus, it appears that the utility can establish "set asides" as part of its resource planning process for resources that will allow the utility to obtain the designated attributes, as long as the set asides do not arbitrarily exclude other resources that would provide the same attributes.

iii. Reasonableness of FIT Rates

As previously discussed, the FIT rates will be based on cost data collected from similar installations in Hawaii and include a reasonable profit amount to be approved by the Commission. Setting FIT rates for eligible technologies requires assessing a price at which the target generator will be viable, covering all of its actual costs and providing a sufficient rate of return to investors to attract investment. Consistent with the Commission's Scoping Paper, a model utilizing a discounted cash flow ("DCF") analysis methodology would be used to assess the nominal levelized FIT rates based on the cost of generation plus a target return on investment ("ROI"), or Internal Rate of Return ("IRR"), for the project over the life of the system. The base rate would represent, for a project coming on line in a given year, a nominal levelized payment stream that has the same net present value ("NPV") as the projected stream of costs and capital flows that provides the target IRR to project owners.

As a result, the FIT rates can be considered to be representative of the costs that would have been incurred had a utility installed the renewable technologies. As such, the cost data collected, along with the analyses that show how the cost data was used to develop the FIT rates should demonstrate that the FIT rates are reasonable.

A similar approach was used by HECO to demonstrate the reasonableness of the fixed

price paid for solar energy from a photovoltaic system at HECO's Ward Avenue facility. HECO entered into a Solar Energy Purchase Agreement for As-Available Energy ("SEPA") with Hoku Solar, Inc., dated November 16, 2007 which governs HECO's purchase of energy from a Hoku Solar-owned photovoltaic ("PV") system with generating capability up to 300 kilowatts dc located on HECO's Archer Substation. HECO and Hoku agreed on a fixed energy payment rate 16. This price is fixed over the term of the SEPA and does not vary with the price of fossil fuel. The SEPA was approved by Decision and Order No. 24225 (issued May 13, 2008).

The application for approval of the SEPA was submitted in Docket No. 2007-0425. The installation of renewable PV generation at HECO-owned sites was part of HECO's integrated resource planning ("IRP") plan in the IRP-3 plan submitted in Docket No. 03-0253. On May 31, 2007, HECO filed its IRP-3 Evaluation Report, updating the IRP-3 Plan that was submitted to the Commission on October 28, 2005 in Docket No. 03-0253.

HECO considered the prospect of procuring and owning the PV resource addition specified in the HECO IRP-3 plan. However, in the process of evaluating PV economics, HECO determined that net PV system costs and resulting PV energy costs would be significantly lower if the PV system was owned by a non-utility party, that sells the PV energy to HECO, since that party would be eligible to claim the available 30% federal renewable energy investment tax credit in addition to the 35% state energy tax credit. A federal tax credit was not available to regulated electric utilities at that time. Based on this determination, HECO decided to purchase the energy from a PV system owned by another party under an energy purchase agreement. (In

HECO purchases energy from Hoku PV system in accordance with Appendix D to the SEPA. All energy delivered by the PV system will be purchased by HECO at a fixed rate of \$0.19 per kWh over the 20-year term of the SEPA. This rate will apply for all metered energy delivered from the PV system and will be a fixed rate in cents per kilowatt-hour with no escalation over the 20-year term of the agreement. The SEPA (Exhibit I, Appendix D) allows for an adjustment to this fixed rate should a new high-rise building be built that causes shading on the PV system such that the annual energy output of the PV system is reduced by more than 10 percent.

addition, purchasing the energy allowed HECO to determine what the fixed-rate is for PV energy over a long term agreement, thus helping to characterize current PV energy costs as well as taking advantage of the hedge value of a stabilized energy rate for its current customers and for potential future green pricing program customers.) Application at 6.

HECO then conducted a request-for-proposals ("RFP") for this PV project. On March 22, 2007, HECO released an RFP for the provision of a PV system, sized at approximately 155 kilowatts dc ("kWdc"), and related SEPA to selected PV system vendors, PV system third-party owners, and PV contractors. The selected distribution list included 25 firms that met the above description. These firms were those that HECO either knew about that met the bidder eligibility requirements established by HECO and specified in the RFP, that had independently contacted HECO expressing interest in bidding on this project after learning about it from a HECO press release. See Application at 7-8.

Two proposals were received by HECO and were evaluated for compliance with the RFP and overall acceptability by HECO. Based on HECO's evaluation criteria, Hoku's proposal for a 167 kWdc PV system was chosen and HECO entered into negotiations with Hoku Solar for the SEPA and PV System. Application at 8. The fixed price payment was based on Hoku Solar's response to the RFP.

In light of the approach discussed above, it should not be necessary to have to estimate the long run avoided energy costs for each FIT participant. Having to conduct such analyses would delay when parties could begin participating in the FIT and would further strain the resources of the utility. Estimating long run avoided energy costs for eligible technologies as a "block" (i.e., the aggregate annual target for each eligible technology) could be problematic as well. For example, to the extent there are benefits of small distributed generation, these benefits

may not be reflected in the results of the analyses for the "blocks" of renewable generation. To the extent the FIT rates are considered representative of the costs to install the renewable technologies plus a reasonable amount of profit, the issues associated with having to perform long run avoided energy cost analyses for each participant or "blocks" of eligible renewable generation can be avoided.

iv. Benefits even if FIT Rates are Below Avoided Cost

With respect to Question 3.c, in general, irrespective of cost, effectively designed FITs can create empirical benefits for renewable developers by driving rapid renewable energy market growth. As explained in Section 7 the HCEI Agreement, FITs provide a mechanism to stimulate renewable energy development by providing predictability and certainty with respect to the future prices to be paid for renewable energy.

For example, FITs can reduce project developer costs, risks and complexity without significantly increasing ratepayer cost by making standard offers available to generators, without the need for potentially lengthy and costly competitive processes. The simplicity and lower transaction costs of FITs lowers the cost of project development, reduces the rate of contract failure, and increases the ability for small businesses and small projects to develop renewable energy systems.

In addition, by basing incentive levels on the cost of generation plus a reasonable return, FITs create a degree of investor security. By lowering investor risk, FITs also lower financing costs, thus reducing policy costs and enhancing developer profits.

v. <u>Does not Establish a New Avoided Cost</u>

With respect to Question 3.b, the FIT rates do not establish a new avoided cost. Avoided costs are not determined through a process that does not reflect prices available from all sources

able to sell energy to the utilities. In 1992, the California Public Utilities Commission ("PUC") included a requirement for a "Green" RFP in its Biennial Resource Plan Update ("BRPU") program. However, in a decision deciding two dockets, FERC held that the 1992 California PUC BRPU program violated PURPA and FERC's implementing regulations, because the California PUC did not consider all sources in reaching its avoided cost determinations.

Re Southern California Edison Co., Docket No. EL95-1 6-000, Order on Petition for Enforcement Action Pursuant to Section 210(h) of PURPA (F.E.R.C. Feb. 23, 1995), reconsideration denied, Order on Requests for Reconsideration (June 2, 1995). See D&O 22588 at 23 n.29.

According to the decision, the BRPU process had three stages. In the first stage, the utilities filed a resource plan identifying potential resource additions and the California PUC determined what new resources the utilities would add. In the second stage, the California PUC determined the utilities' assumed costs, known as "benchmark prices", for the resource additions, and determined which of the additions could be avoided. In the third stage, QFs were allowed to bid against the utilities' benchmark prices, and the utilities were directed to enter into standard offer contracts with the winning bidders (if bids were received that were below the benchmark prices) at prices equal to the price bid by the second lowest bidder.

In the Southern California Edison ("SCE") case, Docket No. EL95-16-000, the deferrable resources identified by the California PUC included two new geothermal plants, a windfarm, and the repowering of an existing steam plant. The identified deferrable resources ("IDRs") would cost much more than constructing new gas-fired turbines, but the California PUC concluded that the IDRs were economic by imputing "massive" environmental compliance costs to the alternative gas-fired resources. The California PUC, implementing a California statute, also

required that one-half of the capacity for three of the four IDRs be reserved solely for renewable bidders. Under the California procedure, winning bidders would be paid an air emissions adder/subtractor based on the difference in projected emissions between the bid-winning QF project and the IDR. SCE claimed that lower-cost alternatives were available for 4.0 cents/kWh or less, even though it was required to execute contracts with QFs at initial rates as high as 6.6 cents/kWh. San Diego Gas & Electric Co. ("SDG&E") raised similar claims in Docket No. EL 95-19-000.

In its decision, FERC stated that the QF industry was a developed industry and the need for integration of policy objectives under PURPA and other federal electric regulatory policies was pronounced, particularly given the fact that the electric utility industry is in the midst of the transition to a competitive wholesale power market. QF rates that exceed avoided cost will give QFs an unfair advantage over other market participants (non-QFs), which will hinder the development of competitive markets and hurt ratepayers.

FERC held that the California PUC's method of determining avoided cost was inconsistent with PURPA and FERC's regulations. FERC held that regardless of whether the State regulatory authority determines avoided cost administratively, through competitive bidding, or some combination thereof, it must in its process reflect prices available from all sources able to sell to the utility whose avoided cost is being determined. If the State determines avoided cost by relying on competitive bidding, the bidding cannot be limited to QFs.

At the same time, FERC acknowledged California's ability under its authority over electric utilities subject to its jurisdiction to favor particular generation technologies over others. FERC stated that, under State authority, a State may choose to require a utility to construct generation capacity of a preferred technology or to purchase power from the supplier of a

particular type of resource, so long as such action does not result in rates above avoided cost.

In addition, the FIT in effect establishes set asides (in terms of the amount and type of eligible technologies). As such, once the targeted amounts have been satisfied, another developer should not be permitted to use those FIT rates for other projects (which may not even be for the same type of technologies).

vi. Other Comments

HAR § 6-74-15(b)(1) provides that electric utilities and QFs may agree to terms and conditions that differ from those that would otherwise be required by the avoided cost rules. However, the Commission has cautioned that "any such contract must receive the PUC's approval if the utility is to recover any payments it makes under the contract from its ratepayers. In its review of such a contract, the PUC must determine, among other things, whether the rates and pricing structure are just and reasonable and in the overall best interest of the general public." Docket No. 6742, Decision and Order No. 12118 (issued January 7, 1983), as amended by Order No. 12212 (issued January 12, 1993).

In addition, HRS § 269-27.2 appears to have been interpreted to prevent a utility from agreeing to purchase at a rate in excess of its avoided cost. In Docket No. 2007-0220, concerning approval of a Schedule Q contract that HELCO had entered into, HELCO contended that certain provisions in HRS §269-27.2(c) only applied if a utility and the supplier of non-fossil fuel generated electricity had not reached agreement on a purchase rate. The Commission in the decision and order disagreed with HELCO's contention. In Docket No. 2007-0220, Decision and Order No. 24009 (issued March 20, 2008) (page 4, footnote 4), the Commission stated:

HELCO responded to the commission's letter dated January 28, 2008, stating that "the provision added by Act 162 concerning establishing a methodology to remove or reduce any linkages between the price of fossil fuels and the rate for nonfossil fuel generated electricity only comes into play where the utility and

the supplier fail to reach agreement on a rate for purchase." The commission, however, disagrees with this assertion by HELCO. Having participated in the legislative process associated with the passage of Act 162, it is the commission's interpretation that Act 162 requires the significant reduction or removal of the linkage between the price of fossil fuels and the purchase rate for nonfossil fuel generated electricity for all new purchased power contracts and agreements. To clarify further, it is the commission's interpretation that Act 162 requires a significant reduction or removal of the linkage between the price of fossil fuels and non-fossil fuel generated electricity, even in those cases where the purchase rate is agreed upon by the public utility and the supplier of non-fossil fuel generated electricity.

The requirement that the rates for purchase by an electric utility be not more than one hundred percent of the utility's avoided cost may apply in all situations (including those where a utility and supplier would have otherwise agreed on a rate in excess of avoided cost).

B. THRESHOLD LEGAL QUESTION NUMBER 2

The second threshold legal issue in the Commission's Scoping Paper provides:

As with any administrative agency decision, a Commission decision approving a feed-in tariff must be supported with substantial evidence.

- a) Focusing on the price term, what evidence is legally necessary? Consider these options, among others:
 - i) evidence of actual costs to develop similar projects in Hawaii
 - ii) generic (i.e., non-Hawaii) evidence of costs associated with each particular technology
 - iii) evidence that the tariff price results in costs equal to or below the utility's avoided cost
- b) By what process do the signatories (and other parties to this proceeding) propose to gather this evidence and present it to the Commission, under the procedural schedule proposed by the signatories?

1. The "Substantial Evidence" Standard

An agency's findings, if supported by reliable, probative and substantial evidence, will be upheld. <u>In re Gray Line Hawai'i, Ltd.</u>, 93 Haw. 45, 53 (2000). In Hawaii, "Substantial evidence

• means credible evidence of sufficient quantity and probative value to justify a reasonable man in

reaching a conclusion." Hong v. Kong, 5 Haw. App. 174, 174, 683 P.2d 833, 835 (1984).

More specifically:

The substantial evidence standard of review applied to agency's factual findings does not require or specify a quantity of evidence but requires only such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. It has been said that substantial evidence is something less than the weight of the evidence. So, also, substantial evidence is somewhat less than and does not mean, nor is it equated with, a preponderance of evidence. . . . In any event, substantial evidence is more than a mere scintilla, and, in order to be substantial, the evidence must do more than create a suspicion of the existence of the fact to be established.

73A C.J.S. Public Administrative Law and Procedure § 448 (2004).

2. Evidence Regarding FIT Rates

Given the desire to ensure that the rates established in the FIT for the various renewable technologies and size of technologies is reasonable, and that the installation of these renewable resources does not negatively impact the utility's electric system, the FIT would initially target those projects for which Hawaii-specific costs and technical requirements are better understood and can be established by substantial evidence in the near term.¹⁷ Thus, the initial FIT would establish rates for known and established renewable energy technologies with proven track records in Hawaii, and with known cost data.

Substantial evidence in this regard could include any credible evidence of sufficient quantity and probative value to justify a reasonable person in concluding that the FIT rates are reflective of known cost data (plus a reasonable profit to be determined by the Commission) for comparable renewable projects in Hawaii. Examples of such evidence could include actual costs of projects of similar size, in similar locations, utilizing comparable technologies, and/or featuring typical interconnection requirements.

The initial FIT rates would be periodically reviewed, updated and adjusted as necessary.

Other resources for which a FIT is not immediately available can be contracted on a one-off basis with the utility under existing processes.

Subsequently, additional rates would be established for other renewable energy technologies that may not have been included in the initial tariff due to lack of available data for such technologies. This would help to ensure that the rates established for the FIT tariff are reflective of the cost of generation plus a reasonable profit, and help to maintain system reliability given that the impacts of the operating characteristics of the technologies on the utility's system are somewhat known.

As noted above, the FIT would initially target those projects for which Hawaii-specific costs and technical requirements are better understood and can be established in the near term. While it would be preferable moving forward to have Hawaii-specific data regarding the costs and technical requirements of all future projects prior to establishing FIT tariff rates for those projects, the HECO Companies recognize that such data may not yet be available when the time comes to establish FIT tariff rates for some of those projects. Thus, in certain instances, it may be necessary to establish those FIT tariffs based in part on non-Hawaii cost evidence.

Substantial evidence in this regard could include any credible evidence of sufficient quantity and probative value to justify a reasonable person in concluding that the FIT rates are reflective of what the cost (plus a reasonable profit) for a typical and comparable project in Hawaii would be. Examples of such evidence could include actual costs of non-Hawaii projects of similar size, utilizing comparable technologies, and/or featuring comparable interconnection requirements, which data could then adjusted to reflect any difference in cost resulting from the project being sited at a specific location in Hawaii, as opposed to outside of Hawaii.

With respect to Question 2, subpart a.iii concerning tariff prices and utilities' avoided costs, please see the discussion in Section I.A.2.c.iii of this response which discusses the use of the cost data collected to develop the FIT rates.

3. Process to Gather Price Term Evidence and Present it to the Commission

The HECO Companies plan to submit this information as part of its proposed FIT tariff filing on January 14, 2009.

DATED: Honolulu, Hawaii, January 12, 2009.

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CERTIFICATE OF SERVICE

I hereby certify that I have this date served a copy of the foregoing JOINT RESPONSE

OF THE HECO COMPANIES AND CONSUMER ADVOCATE TO THRESHOLD

LEGAL QUESTIONS, together with this Certificate of Service, as indicated below by hand delivery and/or by mailing a copy by United States mail, postage prepaid, to the following:

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